

UNITED STATES MARINE CORPS

COMMANDING GENERAL
MARINE AIR GROUND TASK FORCE TRAINING COMMAND
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COMBAT CENTER ORDER P11320.4

From: Commanding General, Marine Air Ground Task Force Training Command, Marine Corps Air Ground Combat Center

To: Distribution List

Subj: COMBAT CENTER EXERCISE SUPPORT BASE AND EXPEDITIONARY AIRFIELD FIRE REGULATIONS AND INSTRUCTIONS

Ref:

- (a) MCO P4400.150E
- (b) MCO P11000.11B
- (c) Occupational Safety and Health Act (NOTAL)
- (d) NAVSANDA Publication 284 (NOTAL)
- (e) MIL-HDBK-1008
- (f) National Fire Codes (NOTAL)
- (g) NAVMC 1101
- (h) CCO 5090.1B
- (i) Interim Lithium Battery Handbook
- (j) CCO P8000.2B
- (k) NAVAIR 00-80R-14 (NOTAL)
- (1) NAVSEA OP-5, Vol 1 (NOTAL)
- (m) TM-9-1300-206 (NOTAL)
- (n) CCO P11320.1D
- (o) Utilities Handbook (Marine Corps Engineer School)
- (p) Draft Equipment Publication Technical Manual for Heater, Space Radiant, Large, Liquid Fuel (H45)
- (q) ICBO Uniform Building Code

Encl: (1) LOCATOR SHEET

- 1. <u>Purpose</u>. To set forth specific instructions pertaining to fire prevention/ protection and life safety at the Exercise Support Base and Expeditionary Airfield located at the Marine Corps Air Ground Combat Center (MCAGCC).
- 2. Cancellation. CCO P11321.1.
- 3. <u>Information</u>. References (a) through (q) are used in the administration of the Combat Center Fire Fighting and Fire Protection Program aboard MCAGCC.
- 4. Action. Commanders will ensure compliance by all personnel with the instructions contained herein.
- 5. Reserve Applicability. This Manual is applicable to the Marine Corps Reserve.

6. Certification. Reviewed and approved this date

Chief of Staff

Acting

DISTRIBUTION: A-1 plus Fire Dept

LOCATOR SHEET

Subj:	
Location:	
	(Indicate location(s) of copy(ies) of this Manual.)

RECORD OF CHANGES

Log completed change action as indicated.

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Change Number	Date of Change	Date Entered	Signature of Person Incorporated Change
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CHAPTER 1

INTRODUCTION

- 1000. GENERAL INFORMATION. This Combat Center Order (CCO) provides a basic source of information to assist Military personnel at all echelons of command in carrying out their responsibilities for implementation of an aggressive and disciplined fire prevention program during Combined Arms Exercise (CAX) operations aboard MCAGCC. The fire prevention practices and other criteria contained in this CCO are minimum requirements.
- 1001. <u>Purpose</u>. This CCO establishes policy, standards, and procedures for the performance of fire prevention and protection services at the Exercise Support Base (ESB) and Expeditionary Air Field (EAF) located at Camp Wilson aboard the Combat Center.
- 1002. APPLICABILITY. This CCO applies to all units and their activities conducted in direct or indirect support of CAX operations located in and about the ESB and EAF aboard MCAGCC.
- 1003. $\underline{\text{POLICY}}$. A planned, aggressive, fire prevention and fire protection program will be carried out by units using the ESB and EAF which shall conform to the following principles.
- 1. Measures shall be taken by qualified personnel to improve fire protection efforts and increase protection to life, property, and the environment.
- 2. Qualified unit personnel shall perform fire protection inspections of buildings, support functions, tents and all occupied areas.
- 3. When there are potential fire risks and/or whenever fire protection or fire fighting equipment is insufficient, fire watches and distribution of fire extinguishers shall be increased to ensure life safety is achieved.

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CHAPTER 2

GENERAL FIRE REGULATIONS

2000. GENERAL

- 1. All new or temporary construction shall be reviewed and approved by the Fire Department. All new construction shall be in accordance with the references. Permanent structures shall meet the requirements for the appropriate occupancy as set forth in references (b), (e), (f), (n) and (o).
- 2. The Fire Department shall have unlimited access to all areas with consideration given to maintain security in classified areas.
- 3. Discrepancies may be given up to a forty-eight hour correction period at the discretion of the fire department. Discrepancies deemed safety hazards shall be corrected immediately or the operation is subject to suspension by the Fire Department.
- 4. Open fires are PROHIBITED in the camp area, including Coleman type stoves or squad stoves.
 - a. Barbecues may be allowed upon approval from the fire department.
- b. All fire either extinguished or non-extinguished, shall be immediately reported to the fire department by calling 9-1-1. Access to emergency services from a cellular phone can be obtained by calling (760) 830-3333.
- 5. All personnel shall be familiar with proper fire reporting procedures as outlined in figure 2-1.
- 6. Fire extinguishers shall be unit provided in all workspaces. These extinguishers shall be of the proper rating and classification for each area of fire protection (See figure 2-2 for extinguisher classification). The Fire Department does not provide nor service fire extinguishers.
- 7. Fire watches shall be maintained during all hours of darkness.
- 8. A minimum of 20-foot clearance shall be maintained in all directions around fire hydrants. NO EXCEPTIONS.
- a. Tracked vehicles are PROHIBITED in camp area due to possible damage to fire mains.
- b. Unauthorized use of a fire hydrant is PROHIBITED. Authorization may be requested from the Fire Department located at Camp Wilson. Call (760) 830-7879 to inquire.
- 9. Doors on the K-Spans shall not be blocked, or propped shut at any time while huts are occupied.
- 10. Smoking is PROHIBITED in tents and/or K-Spans.

2001. FIRE LANES

- 1. All "roads" are considered fire lanes and shall remain clear and unobstructed. Speed bumps, trenches, etc. shall not be used to control speed.
- 2. A maximum of six tents are allowed in a row or block with a minimum spacing of 20 feet between the next row or block. The measurement is taken from tent stake to tent stake. (See Figure 2-3).
- 3. The area between the front of the fire station and the ESB maintenance buildings shall remain clear and unobstructed for Fire Department training purposes.

2002. CONCERTINA WIRE

- 1. All areas secured by concertina wire shall provide a minimum of two access points. The access points will be located on opposite ends of the compound.
- 2. Billeting tents and other living spaces located within areas secured by concertina wire require a minimum of 50-foot clearance in all directions from the tents to the concertina wire.

2003. HEATING

- 1. Heating units of any type are PROHIBITED in K-Spans.
- 2. Heaters, in tents intended as work spaces only, are allowed provided they are of the wood burning, the Toyo stove, multiple fuel, or kerosene type and are vented to the outside. Propane or other compressed gas heaters are PROHIBITED. An accessible fire extinguisher with a minimum 3:A 40:BC rating is required near the workspace. Installation shall be as outlined in reference (f).
- a. Installation of heaters shall be inspected and approved by the fire department prior to operation.
 - b. Ventilation stacks shall extend 18 inches above the tent roof peak.
- c. Camouflage netting is PROHIBITED over tents with fuel or wood fired heaters.
 - d. A fire watch shall be posted at all times while heaters are in use.
- e. Heating units shall be installed on a non-combustible surface. A minimum of three feet shall be maintained from combustibles.

2004. WOOD BURNING HEATERS

- 1. Spark arrestors shall be installed on the stack tip of all types.
- 2. Ashes shall be placed in metal containers, saturated with water and disposed of immediately.
- 3. Wood shall not be stored in structure or near exits.
- 4. Overloading heaters with wood fuel is PROHIBITED.

2005. FUEL FIRED HEATERS

- 1. Fuel fired heaters shall be installed and maintained in accordance with reference (p).
- 2. The only fuel allowed on multiple fuel type heaters shall be diesel fuel, JP-5, K-1 kerosene, or fuel oil. NO EXCEPTIONS. At no time shall these fuels be mixed. Purging is mandatory when fuel is changed.
- 3. The fuel source shall be located outside the tent a minimum distance of two feet from the tent structure. A drip loop shall be provided in the fuel supply line to prevent fuel from traveling along the pipe and entering the tent. Fuel storage shall be properly bermed and lined. (See figure 2-4)

- 1. To initiate an Emergency Services response involving fire, medical, or police dial 9-1-1 and/or pull the nearest fire alarm box. Call (760) 830-3333 from a cellular telephone to activate MCAGCC emergency services.
- 2. When reporting an emergency give your name, location, nature of the emergency and stay on the line until the dispatcher directs you to hang up.
- 3. Have someone stand by (flagger/waver) to direct the fire department into the area of emergency.
- 4. Fire follow the "RACE" procedure.
 - a. Rescue those personnel in danger.
- b. Announce the fire by activating the building fire alarm or by verbal communication to others in the area, call 9-1-1.
 - c. Contain the fire by closing doors and windows.
 - d. Extinguish the fire with appropriate extinguisher if safe to do so.
- 5. Other Emergencies. The Fire Department shall also be called for any of the following emergencies.
 - a. Trauma or Medical Emergency.
 - b. Accidents causing potential threat to life, property or the environment.
 - c. Any incident that might be alleviated by Fire Department intervention.
- 6. Report all fires no matter how small; even those that have been extinguished.

Classification	Extinguishing Agent
Class A - Wood, paper, ash producing materials	Water/ABC Dry Chemical
Class B - Gasoline, fuel oil (petroleum), grease	Dry Chemical/C02
Class c - Energized electrical equipment	Dry Chemical/C02
Class D - Exotic metals (Lithium, titanium, magnesium)	Metal-X/Lith-X

Figure 2-2.-- Fire Extinguisher Classifications

tents in a block of six

1

(20 feet spacing between blocks)

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 $\cap \cap \cap \cap \cap \cap$

Tents in a row of six

1

(20 feet spacing between blocks)

 \downarrow

tents in a group of six

Figure 2-3.—Minimum Spacing of Tents

ESB REGUALTIONS ON SPACE HEATER

NO CAMOFLAUGE NETTING ALLOWED ON TENT WITH STOVE

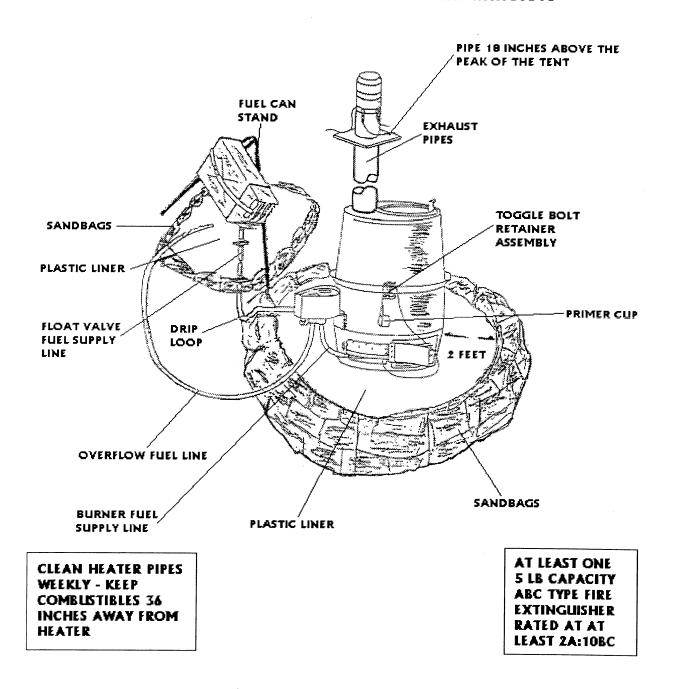


Figure 2-4.--ESB REGULATIONS ON SPACE HEATER

CHAPTER 3

ELECTRICAL WIRING

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CHAPTER 3

ELECTRICAL WIRING

3000. GENERAL

- 1. The exercise force is allowed to construct temporary wiring in accordance with references (f) and (o).
- a. All wiring shall maintain a minimum 12-inch clearance from all heat producing appliances.
- b. Wiring, to include receptacles, fixtures, etc. shall not be supported or come in contact with concertina or barbed wire, metal stakes, or any other metal surfaces.
- c. Fastening wire with nails, hooks, or other non-approved metal is PROHIBITED.
- d. Wiring shall not be tightly crimped, pinched, or have sharp changes in direction.
 - e. Multi-plug adapters in K-spans are PROHIBITED.
- f. Electric wiring or conduit shall not be used for any purpose other than for which it is intended. No items shall be fastened or attached to conduit.
 - g. Electrical appliances are prohibited with the exception of:
 - (1) Upon approval of the Fire Chief.
 - (2) Approved auxiliary wiring.
- h. The use of extension cords in place of approved temporary wiring is $\ensuremath{\mathsf{PROHIBITED}}$. NO EXCEPTIONS.
- i. All temporary wiring shall be completely removed by units upon completion of training exercise, unless approved by the Center Fire Department (CFD) and upon acceptance in writing by the next incoming CAX. All removed wiring shall be turned into the Defense Reutilization Management Office (DRMO) in accordance with current directives.

3001. EXTERIOR WIRING

- 1. Mobile Electric Power Distribution Systems shall be installed in accordance with reference (o).
- 2. Authorized electrical hook-ups from base power include use of the gray junction boxes located on the exterior surface of head facilities.
- a. Re-wiring or tampering with junction boxes, breaker boxes or any permanent electrical service at the ESB is PROHIBITED.
 - b. Gray junction boxes are for lighting purposes only.
- 3. Minimum gage exterior conductor is #8 AWG wire.

- a. Wire shall be buried 12 inches below ground surface.
- b. All overhead wiring shall be a minimum of 18 feet clear height at the dip where passing over fire lanes or between K-Spans where auxiliary wiring has been approved, and at least 10 feet clear height at the dip between tents in tent rows.
- c. Wiring shall not be supported or rest on tent structure surfaces. (See Figure 3-1).
- d. Where wire exits the ground it shall pass through an insulator assembly secured to wooden poles or insulated engineer stakes with assembly area taped off. (See Figure 3-1).
 - e. Wiring shall not be supported or rest on tent structure surfaces.
 - f. Where exterior wire is supported, insulator assemblies shall be used.
- g. Where wire is spliced, wire nuts or other approved methods shall be used and properly insulated with electrical tape or other approved methods, and supported with an insulator assembly per reference (o).
 - h. Drip loops shall be provided on all exterior splices. (See Figure 3-1).
 - i. Underground splicing is PROHIBITED.

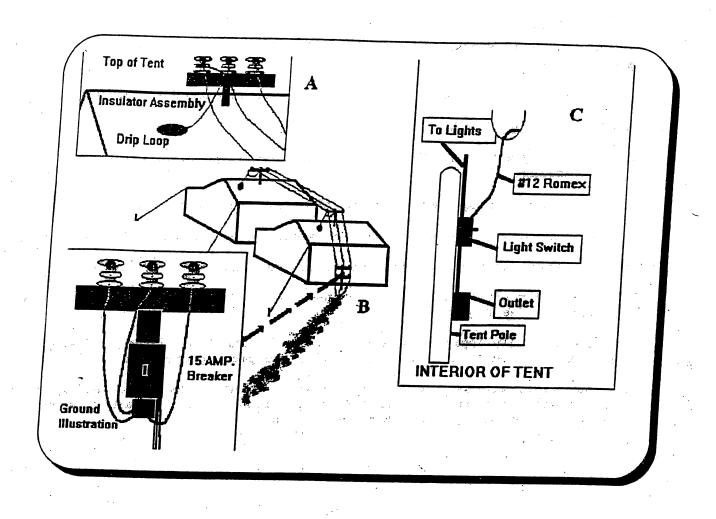
3002. INTERIOR WIRING

- 1. Romex #12 AWG wire is the only approved interior wiring. It shall not be buried or strung between tents/structures. NO EXCEPTIONS.
- 2. Auxiliary light fixtures shall be supported in such a manner that the weight of the fixture is not suspended where connection is made. (See Figure 3-2).
 - a. Wire nuts wrapped with electrical tape shall be used to make connections.
- b. Light fixtures shall be protected from any accidental breakage or contact by a suitable fixture or lampholder with a guard.
 - c. A maximum of five 60-watt bulbs are allowed in each K-Span or tent.
 - d. Light switches shall be provided and used to turn light on and off.
- 3. All outlets shall be protected by Ground Fault Interrupt (GFI).
 - a. Receptacles shall be secured in place by an approved method.
- b. Where mounted to metal posts or tent bracing, sufficient insulation shall be used between post, bracing and receptacle.
- c. Receptacles shall not be installed on the branch circuits that supply temporary lighting.
- 3003. GENERATORS. Emergency disconnects shall be provided on all generators.
- 1. All generators shall be grounded with 25 ohms or less resistance to ground.

2. Ground rod shall be driven at an angle not to exceed 45 degrees.

3004. AUXILIARY WIRING

- 1. Auxiliary wiring is defined as wiring used to power energized equipment other than lighting.
- 2. Auxiliary wiring shall be approved by the Fire Department.
- 3. All aspects of the wiring section shall apply with the following additions.
 - a. Power source shall be a generator supplied by the visiting unit.
- b. A circuit breaker shall be installed at the structure between #8 wire and #12 wire. (See Figure 3-1).
- c. The only approved multi-outlet strips shall be listed for use with computer equipment and only where used to provide equipment protection.
- 4. Auxiliary wiring over 600 volts. Where unauthorized personnel might come in contact with live parts, reference (f) requires posting of warning signs "High Voltage Keep Out, Authorized Personnel Only."



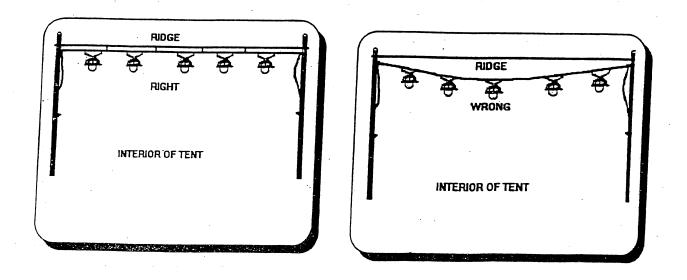


Figure 3-1.-ELECTRICAL WIRING

CHAPTER 4

DINING FACILITIES

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CHAPTER 4

DINING FACILITIES

4000. GENERAL

- 1. All cooking operations shall be in accordance with reference (f).
- 2. All fires, even extinguished fires, shall be reported to the Fire Department immediately by calling 9-1-1 or (760) 830-3333 from a cellular phone.
- a. Anytime an extinguisher is expelled, a letter of incident shall be prepared and forwarded to the Fire Chief via the ESB Food Services Officer. (See Figure 4-1).
- b. All units shall have a daily log and record all incidents to include time, date and loss incurred, if any.
- 3. Fire Alarm Pull Stations shall remain clear and unobstructed at all times.
- 4. Range hoods and all associated components (exhaust system, duct work, etc.) shall be kept free of grease buildup at all times through routine maintenance.
- 5. Visual inspections shall be conducted daily on the hood suppression system to ensure emergency operation. Inspections shall be recorded in the unit fire log.
- 6. Smoking is prohibited within 50 feet of the dining facility, propane tanks and any fuel source.
- 7. In the event of fire, evacuate the building, pull fire alarm and notify the Fire Department. To report an emergency, call 9-1-1 from any MCAGCC phone or (760) 830-3333 from a cellular phone.

4001. FIELD STOVES

- 1. All field-cooking stoves shall be set up and operated in accordance with reference (f).
 - a. Material Safety Data Sheets (MSDS) shall be provided on site at all times.
 - b. Minimum flash point for white gas shall be +22 degrees Fahrenheit.
- c. Fuel shall be stored in an approved designated Petroleum, Oils and Liquids (POL) site.
 - d. All burners shall be lit outside only in an approved lighting area.
 - e. M-2 burners shall be properly purged before storage.
- f. Fire extinguishers shall be of an appropriate size and rating and readily accessible in stove lighting area.
- g. Fire extinguishers shall be checked daily by the visiting unit's Staff Non-Commissioned Officer in Charge (SNCOIC) and documented in the fire log.
- h. The use of field stoves in other than approved field mess areas is $\ensuremath{\mathsf{PROHIBITED}}.$

MEMORANDUM

Date: (Date Fire Occurred)

From: (Using Unit OIC)
To: Center Fire Chief

Via: Camp Wilson ESB Food Services Officer

Subj: LETTER OF INCIDENT, FIRE AT BUILDING 2350

- 1. State how and where fire occurred, time that it occurred, what or who was involved, and a brief description of events.
- 2. State amount of extinguishing agent or number of extinguishers and type used.
- 3. State at what time fire department was called and the name of the fire officer that responded.

(Signature)
(NAME OF USING UNIT OIC)

CHAPTER 5

FUEL HANDLING AND POL SITES

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CHAPTER 5

FUEL HANDLING AND POL SITES

5000. GENERAL

- 1. All fuel handling and POL sites shall be in accordance with references (b) and (f).
- 2. Oil or fuel spills shall be reported to the Fire Department and Natural Resources and Environmental Affairs immediately. To report an emergency, call 9-1-1 from any MCAGCC phone or (760) 830-3333 from a cellular phone. Also notify ESB SNCOIC at 830-7804.
- 3. Due to the average ambient temperatures all class I and class II liquids will be treated as class I liquids for the purposes of this CCO.
- 4. An earth dike shall be established around class I and II liquids of sufficient height to contain 110 percent of total quantity stored at the site.
- 5. Smoking is prohibited within 50 feet of fuel handling areas. "NO SMOKING WITHIN 50 FEET" signs shall be posted and visible from all directions.
- 6. Pumps, handling equipment, devices, etc. shall be properly grounded and bonded prior to fuel dispensing operations.

5001. POL STORAGE

- 1. POL's shall be established more than 50 feet from structure or compound with the appropriate containment, signs, and fire protection.
 - a. Signs shall be posted "NO SMOKING WITHIN 50 FEET."
 - b. At least one fire extinguisher will be provided, rated at 60:BC minimum.
- 2. Refueling shall be conducted at designated fuel dispensing points only.
- 3. Refuelers shall be placed in lined berms.
- 4. When refuelers are staged prior to commencement of training exercise, they shall be parked 50 feet from any structure and 50 feet from other refuelers or vehicles. Staging shall normally be parked/maintained in motor pool areas located across the hard surface road north of ESB main camp area.
- 5. Refuelers are PROHIBITED in camp area. Exception: sixcon or flatbed with two sixcon pods, for refueling generators. The following restrictions apply.
 - a. Refuelers shall conform to all regulations
 - b. Refuelers shall be used for diesel fuel only.
- c. Refuelers shall be properly grounded and bonded during all refueling operations, with a minimum 60:BC rated fire extinguisher on hand. The required extinguisher shall be within 30 feet of travel distance.
- 7. Splash filling is PROHIBITED.

5002. BULK FUEL

- 1. All bulk fuel storage and refueling sites shall always be established down hill from any other facility or encampment.
- 2. Berms shall contain 110 percent of total quantity stored.
- 3. All pumps, separators, counters, and dispensing points shall be properly grounded and bonded.
- 4. Refuelers loading or off-loading fuel shall be properly grounded and bonded.
- 5. Smoking is PROHIBITED in or near bulk fuel handling areas or near fuel trucks.
- 6. A minimum 60:BC rated fire extinguisher shall be maintained within 30 feet of each pump and dispensing point.
- 7. Twin Agent Unit (TAU) fire protection equipment shall be set up and operated in accordance with reference (k) and shall be fully operational prior to receipt/storage of any type of fuel.
- a. A minimum of two TAU units are required during operations located opposite of each other.
 - b. TAU to fuel bladder ratio shall be as follows:
 - (1) Six bags or less 2 TAUs minimum.
 - (2) Add two TAUs for each additional six bags.
- c. Refueler operator must demonstrate operational knowledge of TAU operation to Fire Department representative upon inspection.

CHAPTER 6

HAZARDOUS MATERIALS

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CHAPTER 6

HAZARDOUS MATERIALS

6000. GENERAL

- 1. A hazardous material supply site shall be established in accordance with references (f), (h), this CCO, and shall:
 - a. Be located within a secure compound.
 - b. Be a minimum of 50 feet from all structures and combustible materials.
- c. Be properly marked with a NFPA 704 placard, "HAZARDOUS MATERIALS STORAGE AREA NO UNAUTHORIZED PERSONNEL," AND "NO SMOKING WITHIN 50 FEET" signs in 4 inch letters.
 - d. Have a MSDS for each item stored or in use.
 - e. Be stored and/or disposed of as per reference (h).
 - f. Have a copy of this CCO easily accessible at all sites.
- 2. All hazardous material incidents shall be reported immediately to the Fire Department by calling 9-1-1 from a base phone or from a cellular phone call (760) 830-3333.

6001. LITHIUM BATTERIES

- 1. Lithium batteries shall be stored at least 50 feet from all structures and shall not be stored with any other materials or commodities.
- a. All four sides of storage shall be marked with "NO SMOKING" signs and "FLAMMABLE SOLIDS" placards.
- b. An appropriated portable fire extinguisher shall be provided within 30 feet of site.
- 2. Location of storage sites shall be reported to the Fire Department.
- 3. All incidents involving lithium batteries shall be reported to the Fire Department immediately.
- 4. All waste batteries shall be consolidated daily and disposed of in accordance with current directives.

6002. CLASS V (W) MATERIAL

- 1. Class V (W) material shall not be convoyed or brought into camp area. (Exception is small arms ammunition required for security personnel only).
- 2. The ammunition supply point is the only authorized storage site for Class V (\mbox{W}) material.
- 3. All Class V (W) materials shall be properly marked with corresponding fire symbols and hazard placards.

- 4. Fire protection requirements shall be provided in accordance with references (e), (f), (j), (l), and (m).
- 5. A map showing location and description of all Class V (W) material shall be provided to the Fire Department at Camp Wilson.
- 6. All storage and handling of Class V (W) material shall be in accordance with references (e), (f), (j), (l), and (m).